

CLAIMS

Please amend the claims as follows and cancel claims 1 and 6 without prejudice.

1. (Canceled)
2. (Currently amended) A heavy load support system, comprising:
an object and a support member for supporting the object;
a hydraulic oil seal mechanism for preventing leakage of hydraulic oil,
which is supplied into an hydraulic pocket defined between slide surfaces
respectively formed on oppositely facing sides of the object and the support
member;
a connection means for connecting to the hydraulic pocket a hydraulic
oil supply means for supplying hydraulic oil thereto; and
a hydraulic oil supply stopping means for stopping supply of hydraulic
oil into the hydraulic pocket at the time when a given clearance has been
created between the slide surfaces, said The heavy load support system
according to claim 1, wherein the hydraulic oil supply stopping means
comprises: including a check valve that includes a steel ball for being
brought into press contact with a tapered conduit being in communication
with the hydraulic pocket and having a tapered shape, in such a manner as
to be able to be contacted thereto and separated therefrom a coil spring for
urging the steel ball towards the tapered conduit in a press contact direction,
and a push rod for pushing the steel ball in such a direction away from the
tapered conduit[;], wherein the push rod is placed in a hydraulic oil supply
passage through the hydraulic pocket , and has an upper end disposed

facing the slide surface of the object and a lower end disposed facing the steel ball within the tapered conduit.

3. (Currently Amended) The heavy load support system according to claim [[1]]2, wherein a pressure control valve for stopping supply of hydraulic oil into the hydraulic pocket at the time when hydraulic oil being supplied into the hydraulic pocket has reached a required pressure is provided.

4. (Currently Amended) The heavy load support system according to claim [[1]]2, wherein a pressure adjusting means for adjusting the pressure of the hydraulic pocket to a required pressure is disposed in the hydraulic oil supply passage to the hydraulic pocket, and the hydraulic oil supply passage to the hydraulic pocket, which passage contains the pressure adjusting means, constitute a closed fluid passage.

5. (Currently amended) A heavy load support system, comprising:
an object and a support member for supporting the object;
a hydraulic oil seal mechanism for preventing leakage of hydraulic oil,
which is supplied into an hydraulic pocket defined between slide surfaces
respectively formed on oppositely facing sides of the object and the support
member;
a connection means for connecting to the hydraulic pocket a hydraulic
oil supply means for supplying hydraulic oil thereto;

a hydraulic oil supply stopping means for stopping supply of hydraulic oil into the hydraulic pocket at the time when a given clearance has been created between the slide surfaces; and

~~The heavy load support system according to claim 1, wherein a hydraulic jack that is actuated in a vertical direction and which is disposed above or below the hydraulic pocket.~~

6. (Canceled)

7. (Currently amended) A heavy load support system, comprising:
an object and a support member for supporting the object;
a hydraulic oil seal mechanism for preventing leakage of hydraulic oil, which is supplied into an hydraulic pocket defined between slide surfaces respectively formed on oppositely facing sides of the object and the support member;
a connection means for connecting to the hydraulic pocket a hydraulic oil supply means for supplying hydraulic oil thereto;
a hydraulic oil supply stopping means for stopping supply of hydraulic oil into the hydraulic pocket at the time when a given clearance has been created between the slide surfaces;
wherein the slide surface of the support member has a ring groove for fittingly receiving an elastic ring for preventing leakage of hydraulic oil, and the elastic ring is fitted, along with a blocking ring, in the ring groove, in which the blocking ring is disposed outside the elastic ring and fitted on the elastic ring for blocking the elastic ring from coming out from the ring

groove, and when hydraulic oil supplied into the hydraulic pocket has reached a required pressure, the blocking ring is, along with the elastic ring, brought into press contact with the slide surface of the object so as to block the coming-out of the elastic ring; and

~~The heavy load support system according to claim 6, wherein the~~ blocking ring has an inner circumference whose upper edge is provided with a coming-out blocking portion that is formed into a radially inwardly curved shape so as to be lockingly engaged with the elastic ring around an outer circumferential edge thereof through pressure contact for prevention of a radially outward deformation of the outer circumferential edge of a portion of the elastic ring, which portion contacting the object.

8. (Currently amended) A heavy load support system, comprising:
an object and a support member for supporting the object;
a hydraulic oil seal mechanism for preventing leakage of hydraulic oil,
which is supplied into an hydraulic pocket defined between slide surfaces
respectively formed on oppositely facing sides of the object and the support
member;
a connection means for connecting to the hydraulic pocket a hydraulic
oil supply means for supplying hydraulic oil thereto;
a hydraulic oil supply stopping means for stopping supply of hydraulic
oil into the hydraulic pocket at the time when a given clearance has been
created between the slide surfaces;

~~The heavy load support system according to claim 1, wherein the~~ support member has a ring groove for fittingly receiving an elastic ring for preventing leakage of hydraulic oil, and the elastic ring has an outer

circumference whose upper edge is provided with a hardened portion integrally formed therewith for blocking the elastic ring from coming out from the ring groove, and

when hydraulic oil supplied into the hydraulic pocket has reached a required pressure, an upper surface of the hardened portion is brought into press contact with the slide surface of the object in surface-to-surface contact, and a side surface of the hardened portion is brought into press contact with an outer inside wall surface of the ring groove in surface-to-surface contact, thereby blocking the coming-out of the elastic ring.

9. (Currently amended) A heavy load support system, comprising:
an object and a support member for supporting the object;
a hydraulic oil seal mechanism for preventing leakage of hydraulic oil,
which is supplied into an hydraulic pocket defined between slide surfaces
respectively formed on oppositely facing sides of the object and the support
member;
a connection means for connecting to the hydraulic pocket a hydraulic
oil supply means for supplying hydraulic oil thereto;
a hydraulic oil supply stopping means for stopping supply of hydraulic
oil into the hydraulic pocket at the time when a given clearance has been
created between the slide surfaces; and

~~The heavy load support system according to claim 1, wherein the slide surface of the support member has a ring groove for fittingly receiving an elastic ring for preventing leakage of hydraulic oil, and the ring groove has an outer inside wall surface whose upper portion is provided with a coming-out blocking portion that is lockingly engaged with an upper edge of an outer circumference of the elastic ring so as to block the elastic ring from coming~~

out from the ring groove at the time when hydraulic oil supplied into the hydraulic pocket has reached a required pressure.